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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,700	06/04/2001	Christopher W. Brumme	MS 167388.1	4955
27195	7590	07/15/2004	EXAMINER	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			KANG, INSUN	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/873,700	BRUMME ET AL. Sd	
	Examiner	Art Unit	
	Insun Kang	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/28/2002, 1/17/2002 and 6/4/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/28/02; 1/17/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers dated 2/28/2002, 1/17/2002 and 6/4/2001.
2. Claims 1-48 are pending in the application.

Drawings

3. The drawings are objected to because: the use of ">1" for expressing "more than one" is confusing. It is suggested to correct to "More than one ... signature." Also, the specification recites, "Fig. 10 is ...further illustrating the exemplary expression of an association," however, Fig. 9 and Fig. 10 are identical. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention, "Method Implementation," is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Method and system for expressing association between method declaration and implementation and interpreting the association in a .Net Common Language run time system."

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract contains the phrases, which can be implied: "Methods...are disclosed" in line 1 and "Methods ...are further disclosed" in line 7. Appropriate correction is required.

6. The abstract of the disclosure is objected to because it contains an unclear statement that is not specified in the specification: "Methods and system...for

interpreting ... a declaration in a runtime system" in line 8. It is interpreted as "interpreting an association between a declaration and an implementation." Correction is required. See MPEP § 608.01(b).

7. The use of the trademark VISUAL BASIC has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Objections

8. Claims 3-6, 7, 9, 10, 14, 15, 18, 19, 30, 31, 32, 33, 36, 37, 38, 41, 42, 43 and 45 are objected to because of the following informalities: There appears to be a minor typographical error: The commas before "and" need to be deleted: for example, in claim 3, "a class, a code body...implementation, and the declaration." Appropriate correction is required.

9. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Appropriate correcting is required.

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10. Claims 29-31 are objected to because of the following informalities: There appears to be a typographical error: the claims 1-3 do not recite the computer-readable medium. It is interpreted as: claim 29 is dependent on claim 28, claim 30 on claim 29 and claim 31 on claim 30. Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 5, 6, 8-11, 32 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 5 and 32 recite expressing an explicit association between the method declaration signature and the implementation signature if they do not match. However, this limitation is not described in the specification in such a way as to enable one skilled in the art to perform this expressing, including creating an association between the class, a code body and the declaration, etc. The specification only describes the methods of expressing an association if there are more than one signature matching using an override association rule. In the case where there is no matching pair, it is not enabling to use the same override association table that is used when there are two or more signature matching.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

14. Claims 1-11, 13-23, 25, 26, 29-30 and 41-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claim 1, it is unclear to which declaration in line 3 and implementation in line 5 they are referring. They are interpreted as "the declaration" and "the implementation" accordingly.

Per claim 2, it is unclear to which association in line 1 and override association rule in line 2 they are referring. They are interpreted as "the association" and "the override association rule" accordingly.

Per claim 4, it is unclear to which association in line 1 it is referring. It is interpreted as "the association."

Per claim 5, it is unclear to which target runtime in line 3, association in line 4, implementation in line 3 and override association rule in line 5 they are referring. They are interpreted as "the target runtime," "the association," "the implementation" and "the override association rule" accordingly.

Per claim 6, it is unclear to which code body in line 2 it is referring. It is interpreted as "the code body."

Per claim 7, it is unclear to which association in line 7 it is referring. It is interpreted as "the association."

Per claim 8, it is unclear to which implementation in line 4 and override association rule in line 5 they are referring. They are interpreted as "the implementation" and "the override association rule" accordingly.

Per claim 10, it is unclear to which association in line 1 it is referring. It is interpreted as "the association."

Per claim 11, it is unclear to which source language association rule in line 3 it is referring. It is interpreted as "the source language association rule."

Per claim 13, it is unclear to which association in line 1 and override association rule in line 5 they are referring. They are interpreted as "the association" and "the override association rule" accordingly.

Per claim 16, it is unclear to which override association in lines 6 and 9 it is referring. It is interpreted as "the override association."

Per claim 17, it is unclear to which override association in line 2 it is referring. It is interpreted as "the override association."

Per claim 18, it is unclear to which explicit association in line 2 and code body in line 3 they are referring. They are interpreted as "the explicit association" and "the code body" accordingly.

Per claim 19, it is unclear to which association in line 2 and code body in line 2 they are referring. They are interpreted as "the association" and "the code body" accordingly.

Per claim 20, it is unclear to which override association rule in line 2 it is referring. It is interpreted as "the override association rule."

Per claim 22, it is unclear to which override association rule in line 2 it is referring. It is interpreted as "the override association rule."

Per claim 25, it is unclear to which override association rule in line 2 it is referring. It is interpreted as "the override association rule."

Per claim 29, it is unclear to which association in line 2 and override association rule in line 2 they are referring. They are interpreted as "the association" and "the override association rule" accordingly.

Claim 29 recites the limitation "the computer-readable medium of claim 1" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 30 recites the limitation "the computer-readable medium of claim 1" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation "the computer-readable medium of claim 1" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Per claim 31, it is unclear to which association in line 2 it is referring. It is interpreted as "the association."

Per claim 32, it is unclear to which target runtime in line 3, association in line 5, implementation in line 5 and override association rule in line 5 they are referring. They are interpreted as "the target runtime," "the association," "the implementation" and "the override association rule" accordingly.

Per claim 33, it is unclear to which association in line 5, implementation in line 5, override association rule in line 5 and explicit association they are referring. They are

interpreted as "the target runtime," "the association," "the implementation," "the override association rule" and "the explicit association" accordingly.

Per claim 34, it is unclear to which association in line 3, source language declaration in line 4 and implementation in line 4 they are referring. They are interpreted as "the associating," the declaration" and "the implementation."

Per claim 35, it is unclear to which override association in lines 7 and 10 it is referring. It is interpreted as "the override association."

Per claim 36, it is unclear to which override association in line 3 it is referring. It is interpreted as "the override association."

Per claim 37, it is unclear to which explicit association in lines 6 and 9 it is referring. It is interpreted as "the explicit association."

Per claim 38, it is unclear to which association in line 2 and code body in line 3 they are referring. They are interpreted as "the association" and "the code body" accordingly.

Per claim 39, it is unclear to which override association rule in line 3 it is referring. It is interpreted as "the override association rule."

In claims 41-47, the term "adapted to" is unclear. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Correction is required.

Claim 45 recites the limitation "the method" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Per claim 45, it is unclear to which override association in lines 7 and 9 it is referring. It is interpreted as "the override association."

Claim 46 recites the limitation "the method" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Per claim 47, it is unclear to which association in lines 9 and 13 it is referring. It is interpreted as "the association."

Per claim 48, it is unclear to which declaration in line 4, association in lines 6 and 9 and implementation in line 6 they are referring. They are interpreted as "declaration," "the association" and "the implementation" accordingly.

As per claims 3, 9, 14, 15, 21, 23 and 26, these claims are objected for dependency on the above rejected parent claims 1, 13, 16 and 25.

15. Claims rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are:

Per claims 1, 12, 28 and 41: the claims do not recite the specific steps of interpreting or compiling the expressed association in order to provide the association to the target runtime and the steps of providing the association to the target runtime.

Per claim 16: the claim does not recite the steps of associating a declaration and an implementation before interpreting this association.

Per claim 24: the claim does not recite the steps of associating a declaration and an implementation before interpreting the association. Also, it does not recite the

specific steps of interpreting the association in order to provide the association to the target runtime.

Per claim 34, 44: the claims do not recite the specific steps of expressing an association and interpreting or compiling the expressed association in order to provide the association to the target runtime and the steps of providing the association to the target runtime.

Per claim 35: the claim does not recite the steps of interpreting the association according to a default association rule. The claim does not recite the steps of associating a declaration and an implementation before interpreting the association. Also, it does not recite the specific steps of interpreting the association in order to provide the association to the target runtime and the steps of providing the association to the target runtime.

Per claim 40 and 46-48: the claims do not recite the steps of associating a declaration and an implementation before interpreting the association. Also, it does not recite the specific steps of interpreting the association in order to provide the association to the target runtime and the steps of providing the association to the target runtime.

Per claim 45: the claim does not recite the steps of determining whether the associating comprises an override association. The claim does not recite the steps of associating a declaration and an implementation before interpreting the association. Also, it does not recite the specific steps of interpreting the association in order to

provide the association to the target runtime and the steps of providing the association to the target runtime.

Claim Rejections - 35 USC § 101

16. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

17. Claim 47 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 47 is non-statutory because it is directed to a "source compiler" without recitation of a computer or a computer-readable medium embodying the compiler. The claims merely recite a "source compiler" that is disembodied arrangement so as to be called a "computer program" or compilation of facts, information, or data *per se*, without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer ("acts") or computer readable medium so as to enable the computer to perform the claimed compiling as recited.

Thus the claims represent non-functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

19. Claims 1-4, 7, 12-31 and 34-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Alpern (US Patent 6,651,248).

Per claim 1:

Alpern discloses:

- expressing an association between a declaration and an implementation
("efficient interface method dispatch, which includes an interface method table (IMT) for a given class of objects," col. 3 lines 15-20)
- determining whether a source language association rule related to a declaration is different from a default association rule for a target runtime ("in certain instances the identified IMT entry may store a pointer to a conflict resolution routine. In such instance, the branch and link operation performed ... transfer control to the conflict resolution routine pointed to by the identified IMT entry," col. Lines 7-12; "interface method signature dictionary...is defined that will store a plurality of entries each corresponding to a particular interface method signature of the interface methods declared and implemented by the objects of the program," col. 8 lines 50-61)

- expressing an association between the declaration and an implementation according to an override association rule for the target runtime if the source language association rule is different from the default association rule for the target runtime ("The conflict resolution routine pointer to by a given IMT array entry is used to identify ...the location of the particular interface method...for each virtual method," col. 8 lines 13-30)
- expressing an association between the declaration and the implementation according to the default association rule if the source language association rule is the same as the default association rule for the target runtime ("a method invocation routine performs... ID value assigned to the signature of the interface method to be invoked," col. 8 lines 1-7)

as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Alpern teaches:

- expressing an explicit association between the declaration and the implementation ("The VMT contains entries for all virtual methods, implemented by objects of the given class," col. 6 lines 39-64) as claimed.

Per claim 3:

The rejection of claim 2 is incorporated, and further, Alpern teaches creating an association between a class, a code body associated with the implementation and the

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declaration ("The VMT for a given class comprises a table of entries each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 39-46) as claimed.

Per claim 4:

The rejection of claim 3 is incorporated, and further, Alpern teaches

- creating an entry in an override association table having entries for the class, the code body and the declaration("The VMT for a given class comprises a table of entries each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 39-46) as claimed.

Per claim 7:

The rejection of claim 4 is incorporated, and further, this claim is identical version of the claimed method discussed in claim 4, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

Per claims 12-15:

These claims are another versions of the claimed method discussed in claims 1-4, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

Per claim 16:

- interpreting an association between a declaration and an implementation in a target runtime system ("efficient interface method dispatch, which includes an interface method table (IMT) for a given class of objects," col. 3 lines 15-20)
- determining whether the association comprises an override association ("in certain instances the identified IMT entry may store a pointer to a conflict resolution routine. In such instance, the branch and link operation performed ... transfer control to the conflict resolution routine pointed to by the identified IMT entry," col. Lines 7-12; "interface method signature dictionary...is defined that will store a plurality of entries each corresponding to a particular interface method signature of the interface methods declared and implemented by the objects of the program," col. 8 lines 50-61)
- interpreting the association between the declaration and the implementation according to an override association rule for the target runtime if the association comprises an override association("The conflict resolution routine pointer to by a given IMT array entry is used to identify ...the location of the particular interface method...for each virtual method," col. 8 lines 13-30)
- interpreting the association between the declaration and the implementation according to a default association rule for the target runtime if the association does not comprise an override association("a method invocation routine performs...ID value assigned to the signature of the interface method to be invoked," col. 8 lines 1-7)

as claimed.

Per claim 17:

The rejection of claim 16 is incorporated, and further, Alpern teaches the implementation is related to a class, and wherein determining whether the association comprises an override association comprises determining whether a metadata component comprises an explicit association between the declaration and the implementation ("The VMT contains entries for all virtual methods, implemented by objects of the given class," col. 6 lines 39-64) as claimed.

Per claim 18:

The rejection of claim 17 is incorporated, and further, Alpern teaches - determining whether the metadata component comprises an association between the class, a code body associated with the implementation, and the declaration ("The VMT for a given class comprises a table of entries each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 39-46) as claimed.

Per claim 19:

The rejection of claim 18 is incorporated, and further, Alpern teaches

- determining whether the metadata component comprises an entry in an override association table having entries for the class, the code body, and the declaration ("The VMT for a given class comprises a table of entries each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 39-46) as claimed.

Per claim 20:

The rejection of claim 19 is incorporated, and further, Alpern teaches associating the code body with the declaration in the runtime system according to the override association table ("The VMT for a given class comprises a table of entries each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 39-46) as claimed.

Per claim 21:

The rejection of claim 20 is incorporated, and further, Alpern teaches providing the association between the declaration and the implementation to a JIT compiler via a layout component (col. 6 lines 10-44; Fig 7B) as claimed.

Per claims 22 and 23:

These claims are another versions of the claimed method discussed in claims 20 and 21, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

Per claims 24-26:

These claims are another versions of the claimed method discussed in claims 16, 20 and 21, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

Per claims 28-31, they are the computer-readable medium versions of claims 1-4, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-4 above.

Per claim 34, it is the computer-readable medium version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claims 35-39, they are the computer-readable medium versions of claims 16-20, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 16-20 above.

Per claim 40, it is the computer-readable medium version of claim 24, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 24 above.

Per claims 41-43, they are the system versions of claims 1, 3 and 4, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1, 3 and 4 above.

Per claim 44, it is the system version of claim 12, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 12 above.

Per claim 45, it is the system version of claim 16, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 16 above.

Per claim 46, it is the system version of claim 26, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 262 above.

Per claim 47:

Alpern discloses:

- an association expression system for expressing an association between a source language declaration and an implementation in a language neutral fashion ("The dynamic loading and linking process creates and lays out Java objects according to a predetermined object model... this object model supports dynamic linking through a virtual method dispatch mechanism that includes a virtual method table... for a given class of objects... each containing a pointer to an implementation of a virtual method implemented by objects of the given class," col. 6 lines 32-46)
- a first component adapted to determine whether a source language association rule related to the source language declaration is different from a default association rule for

a target runtime("in certain instances the identified IMT entry may store a pointer to a conflict resolution routine. In such instance, the branch and link operation performed ... transfer control to the conflict resolution routine pointed to by the identified IMT entry," col. Lines 7-12; "interface method signature dictionary...is defined that will store a plurality of entries each corresponding to a particular interface method signature of the interface methods declared and implemented by the objects of the program," col. 8 lines 50-61)

-an association expression component adapted to express an association between the source language declaration and the implementation according to an override association rule for the target runtime if the source language association rule is different from the default association rule for the target runtime ("The conflict resolution routine pointer to by a given IMT array entry is used to identify ...the location of the particular interface method...for each virtual method," col. 8 lines 13-30)

- express an association between the declaration and the implementation according to the default association rule if the source language association rule is the same as the default association rule for the target runtime ("a method invocation routine performs...ID value assigned to the signature of the interface method to be invoked," col. 8 lines 1-7) as claimed.


Per claim 48, this claim is another version of the claimed method discussed in claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 703-305-6465. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Insun Kang
Patent Examiner
2124


KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100